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ABSTRACT OF THE DISCLOSURE

5 A method for embedding digital watermark  
data in digital data contents includes the steps of  
obtaining a frequency coefficient of block data of  
digital data contents, obtaining a complexity of the  
block data, obtaining an amount of transformation of  
the frequency coefficient from the complexity and  
the digital watermark data, and embedding the  
digital watermark data by transforming the frequency  
10 coefficient. In addition, a method for reading  
digital watermark data includes the steps of  
calculating a probability of reading '1' or '0' in a  
read bit sequence by using a test method on the  
basis of binary distribution, determining the  
15 presence or absence of digital watermark data  
according to the probability, and reconstituting  
digital watermark data. Another method includes the  
steps of performing soft decision in code theory by  
assigning weights to the digital watermark sequence  
20 with a weighting function, and reconstituting  
digital watermark data.

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